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## Safety Data Sheet

Issue Date: 10/20/20

Supersedes Date: 10/23/19

### SECTION 1: Identification

#### 1.1. Product identifier

Calcium, Rust & Lime Remover

#### Product Identification Numbers

ID Numbers

**CR01606, CR01610**

#### 1.2. Recommended use and restrictions on use

Recommended use: Calcium, Rust & Lime Remover

Restrictions on use: Do not use with chlorates, nitrates, hypochlorites or alkaline materials.

#### 1.3. Supplier's details

##### MANUFACTURER

Flitz International Ltd.

##### ADDRESS:

821 Mohr Ave., Waterford, WI 53185, USA

##### Telephone:

262-534-5898

#### 1.4. Emergency telephone number: 262-534-5898

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

This material is considered hazardous by the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

Classification of the substance or mixture:

Corrosive to Metals - Category 1

Eye Damage - H318 Causes serious eye damage/Irritation Category 1

Acute Toxicity - Category 1

#### 2.2. Label elements Signal word: DANGER

Symbols:



GS05



GHS07

#### Hazard Statements

May be Corrosive to Metals

Causes Serious Eye Damage

Harmful if Swallowed

#### 2.3 Other Hazards – None Known

### SECTION 3: Composition/information on ingredients

Ingredient	CAS. #	% by Wt
Water	7732-18-5	
Urea Monohydro-Chloride	NJTS 850121-01	
Proprietary Inhibitor	NJTS 513211-01	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

#### 4.1. Description of first aid measures

##### General information:

Take off contaminated clothing and wash before reuse.

##### Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

##### Skin Contact:

Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

##### Eye Contact:

Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

##### If Swallowed:

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waist- band.

#### 4.2. Most important symptoms and effects, both acute and delayed

**Eye Contact:** Causes serious eye damage

**Inhalation:** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin Contact:** Causes mild skin irritation

**Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach

##### Over Exposure Signs/Symptoms

**Eye Contact:** Adverse symptoms may include the following:

Pain or irritation Watering Redness

**Inhalation:** No known significant effects or critical hazards.

**Skin Contact:** Adverse symptoms may include the following:

Irritation Redness

**Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach

#### 4.3. Indication of any immediate medical attention and special treatment required

**Notes to Physician:** In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific Treatments:** No specific treatment

**Protection of First Aiders:** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## **SECTION 5: Fire-fighting measures**

### **5.1. Suitable extinguishing media:**

Use a firefighting agent suitable for the surrounding fire.

### **Extinguishing media that must not be used:**

None known.

### **5.2. Special hazards arising from the substance or mixture**

At temperatures above 60°C/140°F acid action on most metals may release hydrogen, a highly flammable and explosive gas.

### **5.3 Special protective actions for fire-fighters**

No special measures are required.

### **5.4 Special protective equipment for fire-fighters**

Use self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings. First residues and contaminated fire-fighting water must be disposed of in accordance with local regulations.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

See protective measures under point 7 and 8.

### **6.2. Environmental precautions**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### **6.3 Methods and material for containment and cleaning up**

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

### **6.4 Reference to other sections:** See Sections 1, 7, 8 & 13

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

- Wear suitable protective clothing. (See section 8.)
- Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist.
- Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.
- Empty containers retain product residue and can be hazardous. Do not reuse container.

### **7.2. Conditions for safe storage including any incompatibilities**

- Store in accordance with local regulations.
- Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
- Keep container tightly closed and sealed until ready for use.
- Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit: At this time no constituents have known exposure limits.

### 8.2. Exposure controls

Exposure controls. Additional advice on system design.	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Eye protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Skin protection/other	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Thermal hazards	none
Delimitation and monitoring the environmental exposition.	No special precautionary measures are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Form	Liquid [Clear]
Color	Yellow
Odor	N/A

**Flitz Calcium, Rust & Lime Remover**

Odor Threshold	N/A
pH Value	0.7 typical [as is]
pH Value 1%	Not determined
Boiling Point	100°C (212°F)
Flash Point	>93.3°C (>200°F)
Flammability (solid, gas)	N/A
Lower & Upper exposure limits	N/A
Oxidizing properties	No
Vapor pressure/Gas pressure [KPa]	<0.013kPa (<0.1mmHg) [room temperature]
Density [g/ml]	1.21 +/- 0.2
Bulk Density	Not applicable
Solubility in water	Easily soluble
Partition coefficient [n-octanol/water]	Not determined
Viscosity	Not determined
Relative vapor density determined in air	Not determined
Evaporation speed	Not determined
Melting point	Not applicable
Autoignition temperature	Not self-igniting
Decomposition temperature	Not determined
Other information	None

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No specific test data related to reactivity available for this product or its ingredients

**10.2. Chemical stability**

The product is stable under standard conditions

**10.3. Possibility of hazardous reactions**

Will not occur

**10.4. Conditions to avoid**

No specific data.

**10.5. Incompatible materials**

Reactive or incompatible with the following materials: oxidizing materials. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites (eg. Chlorine bleach, sulfides or cyanides) will liberate toxic gases. Contact with alkaline materials (eg. Aqua ammonia) will generate heat.

**10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

**11.1. Information on Toxicological effects**

Serious eye damage/irritation	May cause irritation.
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**Flitz Calcium, Rust & Lime Remover**

<b>Skin corrosion/irritation</b>	Mild skin irritant (OECD 404) Eye corrosive (OECD 405)
<b>Respiratory or skin sensitization</b>	Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Specific target organ toxicity – single exposure</b>	There is no data available.
<b>Specific target organ toxicity – repeated exposure</b>	There is no data available.
<b>Mutagenicity</b>	Not Mutagenic (OECD 471)
<b>Reproduction toxicity</b>	No known significant effects or critical hazard
<b>Carcinogenicity</b>	No components are listed as carcinogens by IARC, ACGIH, OSHA or NTP.
<b>Aspiration Hazards</b>	There is no data available
<b>General Remarks</b>	Frequent persistent contact with skin can cause skin irritation.

**SECTION 12: Ecological information**

<b>12.1 Chronic Toxicity</b>	Product has not been tested
<b>12.2 Persistence and degradability</b>	No data available
<b>12.3 Bio-accumulative potential</b>	No data available
<b>12.4 Mobility in soil</b>	No data available
<b>12.5 Results of PBT &amp; vPvB assess.</b>	Based on all available information not to be classified as PBT or vPvB respectively.
<b>12.6 Other adverse effects</b>	Do not allow to enter into surface water or drains.

Product/ingredient name	Result	Species	Exposure
BJSI	Acute LC50 71mg/L	Ceriodaphnia dubia	48 hours
BJSI	Acute LC0 >142mg/L	Rainbow trout	96 hours

**SECTION 13: Disposal considerations**

Product:	Dispose in accordance with the regulations of local authorities
Contaminated packaging	Packaging that cannot be cleaned should be disposed of as for product. Uncontaminated packaging may be taken for recycling.

**SECTION 14: Transport Information**

	DOT	TDG	IMDG	IATA
UN Number	Not regulated	1760	1760 1	1760
UN Proper Shipping Name	-	Corrosive liquid N.O.S. (Urea monohydrochloride)	Corrosive liquid N.O.S. (Urea monohydrochloride)	Corrosive liquid N.O.S. (Urea monohydrochloride)
Transport Hazard Class(es)	-	8	8	8
Packing Group	-	III	III	III
Environmental Hazards	No	No	No	No
Additional Information	Exempt under DOT 49 CFR 173.154 d). This material is corrosive to aluminum only. Not corrosive to mild steel and skin	This material is corrosive to aluminum only. Not corrosive to mild steel and skin	This material is corrosive to aluminum only. Not corrosive to mild steel and skin	This material is corrosive to aluminum only. Not corrosive to mild steel and skin

**Flitz Calcium, Rust & Lime Remover**

- 14.6 Special precaution for user Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

U.S. Federal Regulations: United States Inventory (TSCA): All components are listed or exempted

Clean Air Act Section 112:  
(b) Hazardous Air Pollutants (HAPS) Not listed

Clean Air Act Section 602:  
Class I Substances Not listed

Clean Air Act Section 602:  
Class II Substances Not listed

DEA List I Chemicals:  
(Precursor Chemicals) Not listed

DEA List II Chemicals:  
(Essential Chemicals) Not listed

SARA 302/304  
Composition/Information on Ingredients: Not listed

SARA 311/312

Classification: Immediate (acute) health hazard

**15.2 Chemical safety assessment** Not applicable**Composition/Information on Ingredients**

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
Urea Monohydrochloride	50-100	No	No	No	Yes	No

**SECTION 16: Other information****International Lists**

## National Inventory

Australia (AICS):	All components are listed or exempted.
Canada (DSL):	All components are listed or exempted.
China (IECSC):	All components are listed or exempted.
Europe (EINECS):	All components are listed or exempted.
Japan (ENCS):	All components are listed or exempted.
New Zealand (NZIoC):	All components are listed or exempted.
Philippines (PICCS):	All components are listed or exempted.
Republic of Korea (KECL):	All components are listed or exempted.
Taiwan (NECI):	All components are listed or exempted.

**Flitz Calcium, Rust & Lime Remover****Issue Date:** 10/20/20**Supersedes Date:** 5/23/19

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<b>This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.</b>
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